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10/561,791

12/21/2005

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EXAMINER

TAOUSAKIS, ALEXANDER P

ART UNIT

PAPER NUMBER

3726

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |   |                                    |  |
|------------------------------|---|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/561,791      | <b>Applicant(s)</b><br>ARAI ET AL. |  |
|                              | <b>Examiner</b><br>ALEXANDER P. TAOUSAKIS | <b>Art Unit</b><br>3726            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-9 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-9,15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/21/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). However, claim 9 has been examined as though it were written --according to claim 6 or 7-- rather than "according to any one of claims 6 through 8" as it is currently written.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is insufficient antecedent basis for the limitation "said movable plate" (line 2) in either of claims 1 and 2. It appears that claim 16 should actually depend from claim 14 instead.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-3 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Friese (Pub 2006/0123629).**

1. Friese teaches a method of forming a wheel rim hump portion (12) along a circumferential direction on an outer circumferential wall surface of a vehicular wheel rim (1) (*see Abstract*) gripped by gripping means (2b) (*Figure 4*), comprising the steps of: supporting said vehicular wheel rim (1) from the outer circumferential wall surface thereof with a first die (*upper shaping roller 10*) having a recess (*seen substantially toward the distal end of upper shaping roller 10 for forming hump portion 12*), and pressing said vehicular wheel rim (1) from an inner circumferential wall surface thereof with a ridge (*seen substantially at the distal end of lower shaping roller 10 for forming hump portion 12*) disposed on a second die (*lower shaping roller 10*) coupled to a rotational shaft (*unlabeled in Figure 4*) at a position corresponding to said recess to raise the outer circumferential wall surface of said vehicular wheel rim (1); and rotating said rotational shaft (*see Figure 4 and paragraph [0044]*) to displace said ridge along the circumferential direction on the inner circumferential wall surface of said vehicular wheel rim (1), thereby raising said outer circumferential wall surface along the circumferential direction to form a hump portion (12, *see Figure 4*).

2. Friese teaches a method according to claim 1, wherein said first die (*upper shaping roller 10*) has another recess different from said recess (*seen substantially at 11*), and when said vehicular

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wheel rim (1) is supported from said outer circumferential wall surface thereof, a curled portion (11) on an end of said vehicular wheel rim (1) is accommodated and supported in said other recess (*see Figure 4*).

3. Friese teaches a method according to claim 1 or 2, wherein a roller having said ridge projecting from a side circumferential wall thereof is used as said second die (*lower shaping roller 10, see Figure 4*).

15. Friese teaches the apparatus according to claim 1, further comprising fixing means for positioning and fixing said first die which is closed (*see Figure 4 and note that rollers/dies 10 are positioned adjacent and fixed onto the rim 1 by unlabeled arms/spindles*).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frieze (Pub 2006/0123629).**

6. Frieze teaches an apparatus for forming a wheel rim hump portion (12) along a circumferential direction on an outer circumferential wall surface of a vehicular wheel rim (1) gripped by gripping means (2b) (*see Figure 4*), comprising:

a first die (*upper shaping roller 10*) having a recess (*seen substantially at 12*), for supporting said vehicular wheel rim (1) from an outer circumferential wall surface thereof (*see Figure 4*);

a second die (*lower shaping roller 10*) coupled to a rotational shaft (*see Figure 4*) and having a ridge (*seen substantially at the distal end of lower shaping roller 10*) at a position corresponding to said recess; and

rotating means for rotating said rotational shaft (*unlabeled in Figure 4*);

wherein said vehicular wheel rim (1) is pressed from an inner circumferential wall surface thereon with said ridge of said second die (*lower shaping roller 10*) (*see Figure 4*), and plastically deformed material of said vehicular wheel rim (1) is caused to enter said recess of said first die (*upper shaping roller 10*) to raise said outer circumferential wall surface of said vehicular wheel rim (1) (*see Figure 4*); and

wherein said rotational shaft (*see Figure 4*) is rotated to displace said ridge along the circumferential direction on the inner circumferential wall surface of said vehicular wheel rim (1), thereby raising said outer circumferential wall surface along the circumferential direction to form a hump portion (*see Figure 4*).

Friese fails to teach a placement table for placing said vehicular wheel rim (1) thereon.

The Examiner takes Official Notice that it is well known in the art that formed wheel rims are conventionally placed on a placement table for supporting and handling the wheels prior to or subsequent to roller forming the rim. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a placement table for the vehicle wheel rim (1) of Friese for storage and handling.

7. Friese teaches the apparatus according to claim 6, wherein said first die (10) has another recess different from said recess (*seen substantially at 11 in Figure 4*), and when said vehicular wheel rim (1) is supported from said outer circumferential wall surface thereof, a curled portion on an end of said vehicular wheel rim (1) is supported in said other recess (*see Figure 4*).

8. Friese teaches the apparatus according to claim 6 or 7, wherein said second die (10) comprises a roller having said ridge (*seen substantially at 12*) projecting from a side circumferential wall thereof (*see Figure 4*).

9. Friese teaches the apparatus according to claim 6 or 7, further comprising reversing means for reversing said gripping means (*see [0028], where it discloses that the gripping means 2b may be moved in the axial direction, i.e. may be reversed to remove the wheel rim 1*).

***Allowable Subject Matter***

Claims 14 and 17 are allowed.

Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 14: The prior art fails to teach the claimed apparatus for forming a wheel rim hump portion comprising two movable plates on a first die thereof.

Claim 17: The prior art fails to teach the claimed apparatus for forming a wheel rim hump portion comprising a gripping means, a first die having a recess, a second die having a ridge a rotating means and a support member displacing means for displacing the support member, where the support member supports a curled portion.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER P. TAOUSAKIS whose telephone number is (571)272-3497. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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